

Legal Problems in the Implementation of the Environmental Impact Assessment in Ukraine: A Critical Review

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Abstract

By signing the Aarhus Convention and the Association Agreement with the EU, Ukraine has committed itself to adapting domestic legislation conforming European standards concerning environmental impact assessment. To fulfill international obligations, the Law “On Environmental Impact Assessment” was adopted by Ukraine. However, under this law of Ukraine, not all objects and activities having impact on the environment are assessed for their environmental impact, but only those having a significant impact on the environment are assessed. The aim of this article is to analyse the legislation of Ukraine on environmental impact assessment, and to compare it with the EU legislation. Special attention is paid to the judicial practice being adopted while implementing the said law. With the help of a case study, the shortcomings of the Ukrainian legislation are analysed and highlighted.

Keywords

Environmental protection; Environmental management; EIA; Ecological integrity; Right to a fair trial

Introduction

Environmental security and safety in Ukraine are ensured by implementing a wide range of interrelated political, economic, technical, organizational and legal measures. But such measures are not homogeneous in their content. In the environmental and legal literature, such measures are classified into several types depending on their direction: organizational-preventive, regulatory-stimulating, prescribing-executive, protection-restorative and interim. It is believed that they form a unified system of legal means aimed at regulating activities that can enhance environmental safety, prevent the deterioration of the environment and risks to the population and natural ecosystems, and minimize the manifestation of damage.

Environmental impact assessment (EIA) is a process aiming to mitigate the negative impacts of a development activity. EIA was introduced in Ukraine in 2017 with the adoption of the Law of Ukraine “On Environmental Impact Assessment”¹ (Law on EIA). The main innovation of the law is the introduction of a new permit, which is a kind of concluding statement on EIA (hereinafter termed as ‘EIA clearance’). The Law of Ukraine on EIA is based on the European approach to EIA outlined in the Directive 2011/92/EU² of the European Parliament (as passed by the Council on 13 December 2011). This EU law was required to be adopted by Ukraine under the Association Agreement³ with the EU.

The strengths of the Law on EIA include public participation, including in the early stages, consideration of alternatives to planned activities, transparency of the procedure, and integrating the economic and social conditions of the region. In these provisions, broader sustainability approach to EIA is adopted. Such characteristics of the law are subscribed from the EU legislature. In addition to environmental safety mechanisms built in the law, the problematic aspects of the law are also highlighted in this analysis.

Problematic Aspects of EIA

One major problem of EIA in Ukraine is the imperfection of the adopted law regulating legal actions and implications. This is confirmed by number of scientific studies (Kutsevych *et al.*, 2020; Ladychenko and Golovko, 2018; Shparyk, 2018; Yara *et al.*, 2018) as well as the practice of application of this Law. One of the key problems of this Law is related to exhaustive list of activities that are subjected to EIA. What does this list contain? This Law on EIA covers the planned activities of an enterprise that are subject to assessment. Article 1 of the Law on EIA articulates that planned activities of an enterprise mean the planned economic activities, including construction, reconstruction, technical re-equipment, expansion, redevelopment, liquidation (dismantling) of facilities, and other activities impacting the environment. The planned activities having no significant impact on the environment are not subject to EIA. The Law on EIA contains two lists of activities, which require an EIA before granting of permission to carry out an activity. The first list includes planned activities and facilities that may have a significant impact on the environment (part 2, article 3 of the Law on EIA). These activities belong to the production category: refineries; installations for the production or enrichment of nuclear fuel; installations for the disposal of radioactive waste; ferrous and non-ferrous metallurgy; asbestos processing facilities; chemical production (including production of basic chemicals, chemical-biological, biotechnical, pharmaceutical production using chemical or biological processes; production of plant protection products, mineral fertilizers, polymers and polymer-containing materials with a capacity of more than 10 tons per year), construction of airports, highways, and so on. These activities are potentially more dangerous and, therefore, need more attention. The Ministry of

¹ Law of Ukraine (1991). Pro ochoronu navkolysnoho pryrodnoho seredovysca (On Environmental Protection), Law of Ukraine 1264-XII of 1 January (1991), Verkhovna Rada of Ukraine, 1991. Available online: <https://zakon.rada.gov.ua/laws/show/1264-12#Text> [Accessed 21 April 2021]

² Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011L0092> [Accessed 21 April 2021]

³ Association Agreement between the European Union and its Member States, of the one part, and Ukraine, of the other part. Available online: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A22014A0529%2801%29>

Environmental Protection and Natural Resources of Ukraine is responsible for EIA of the activities of enterprises falling in the ambit of first list, and the Ministry provides an EIA clearance. All activities mentioned in the first list must also be assessed for transboundary environmental impact in accordance with Ukraine's international obligations.

The second list includes planned activities and facilities that may have a potential impact (not significant) on the environment. Such activities are: deep drilling; mining industry; energy industry; production and processing of metal; mineral processing, etc. (part 3, article 3 of the Law on EIA). Departments of Ecology at the level of concerned regional state administration in the territory where planned activities are to take place need to conduct EIA and provide an EIA clearance to the activities listed in second list.

In preparing the above lists, the legislator referred the Directive 2011/92/EU of the European Parliament and the Council of the European Union. However, the practice of implementing such provisions of the Law on EIA in Ukraine demonstrates the ineffectiveness of the legal regulation. Although the lists of activities designated for environmental impact are exhaustive, yet these lists are not inclusive. If a planned activity is absent in list 1 or list 2, then law does not need to conduct the EIA for that activity. On the contrary, practically, there are still cases when excluded activities also have a significant impact on the environment. Here, the Ukrainian legislation differs from the EU legislation in which all projects listed in Annex I of the Directive 2011/92/EU are considered as having significant effects on the environment and, thus, require an EIA; and for projects listed in Annex II, the national authorities are empowered to decide whether an EIA is needed or not. This is done by the "screening procedure", which determines the effects of projects based on a threshold/criterion or a case-to-case examination. However, while screening and deciding, the national authorities must take into account the criteria laid down in Annex III (European Commission, 2021). As a result, these provisions of EU law give a room for discretion. Nevertheless, there exist variations between Member States having the criteria for EIA, meaning that a certain project could be subject to an EIA in one Member State but not in another (Pinho, McCallum and Santos Cruz, 2010).

Another disadvantage of Ukrainian Law on EIA is the missing requirement for cumulative effects assessment (CEA). The European Union and Canada have made significant progress in adopting CEA as one of the requirements in the process of EIA. The basis of CEA is the impact the multiple projects or activities create cumulatively; and a cumulative impact is greater than or different than that of each individual project (Broderick, 2013). Therefore, the impact of projects on the environment should be accounted cumulatively, not discretely. In Canada, several regional CEA and management initiatives have been pursued. As Noble (2008) points out, regional CEA is inherently future oriented. This requires a supporting strategic environmental assessment framework, structured scenario-based analysis, a multi-scaled perspective, and an integrated approach to CEA, and regional plan development (Noble, 2008).

The Ministry of Energy and Environmental Protection of Ukraine has started to develop a National Framework Strategy for Adaptation to Climate Change. But this work has begun only recently, and, at this stage, climate change mitigation does not fit into Ukrainian EIA law, which is also the weakness of the law. On the positive side, the State has begun to understand the importance of prevention of climate change and has begun to develop the first strategy in this context. No doubt, the climate change mitigation and adaptation should also be taken into account during the process of EIA.

The Law of Ukraine on EIA came into force since December 2017 and during this period the relevant case laws regarding EIA process have already been developed. According to the register of court decisions in Ukraine, the following cases are considered by administrative courts:

- on declaring illegal and revoking the decision of public authorities (Department of Ecology and Natural Resources of the Regional State Administration) refusing to issue a permit for an activity;
- on declaring illegal and revoking the EIA clearance; and
- on the temporary prohibition (suspension) of activities until EIA clearance.

A significant number of cases are initiated on the claims of non-governmental organizations (NGOs) to cancel the EIA clearances. As a rule, court decisions are taken not in favour of the plaintiff. The decision of the Transcarpathian District Administrative Court (March 18, 2020) on construction of a wind farm recognized, for the first time, an EIA clearance illegal on the claim of an NGO (Transcarpathian District Administrative Court, 2020). The analysis of case law showed the absence of decisions that would otherwise establish financial compensation for violation of EIA procedures. Notably, absence of penalties in the law weakens the implementation and enforcement of EIA law in Ukraine.

A Case Study

A specific case is discussed here to demonstrate some of the problematic aspects that emerge during practice of the law. Case № 1.380.2019.005795 is under judicial review currently. The litigant, “SILA VINNYK”, a public organization, filed the suit against the Department of Ecology and Natural Resources of the Lviv Regional State Administration and “EKARAN” LLC. The plaintiff sought cancellation of EIA clearance issued to proposed planned activities (new construction of a hot-dip galvanizing plant) in the area of the Pidberiztsi village council lying in Pustomyty district, Lviv oblast [№ 03.02-20181262351 of April 25, 2019].

The industrial activity was listed in list 2 category of activities having an impact on the environment. The defendant enterprise started building a plant in the periphery of 300 meters from the village Podbereztzy, violating the essential procedure of calling a public hearing on the EIA Report.

To perform a legal analysis of this case, the following documents were analysed:

- Notice notifying the planned activities of the “EKARAN” LLC subject to EIA (published on December 12, 2018 by “EKARAN” LLC);
- EIA Report on planned activity “New construction of a hot-dip galvanizing plant on the territory of Pidberiztsi village council, Pustomyty district, Lviv region” № 20181262351 (promulgated on February 21, 2019);
- Announcement for a public discussion on the EIA Report (published on February 21, 2019);
- Comments and suggestions of the people on the planned activity (published on January 15, 2019);
- Report of public discussion on planned activity № 03.02-2018/262351/1 dated April 25, 2019 (hereinafter referred to as “public discussion”);
- EIA clearance for the planned activity “New construction of a hot-dip galvanizing plant on the territory of Pidberiztsi village council, Pustomyty district, Lviv region № 20181262351/2 of 02.05.2019”;
- Expert recommendation basing the results of the forensic engineering and environmental examination in administrative case № 1.380.2019.005795 of June 22, 2020 № 1956, drawn up by the forensic expert V. Makarchuk (hereinafter referred to as “expert recommendation”).

All these documents were studied in order to analyse the decision on granting a construction permit for a hot-dip galvanizing plant by “EKARAN” LLC on the territory of Pidberiztsi village council.

Description and Argumentation of the Case

Based on the legal analysis of the documents, current environmental legislation and the review of latest literature, the following conclusions are drawn. Though only the projects or activities having a significant impact on the environment are subjected to EIA, it is essential to classify the hazards of certain activities in accordance with the lists of activities listed in article 3 of the Law on EIA. In Ukraine, besides the Law on EIA, there are other legal frameworks that instruct how to determine the degree of environmental hazard of an activity. In particular, the legislations that consist of procedures to determine risks posed by a planned

activity are: Code of Civil Protection of Ukraine⁴, Law of Ukraine “On High Risk Facilities”⁵, Resolution⁶ of the Cabinet of Ministers of Ukraine of July 11, 2002 № 956 “On Identification and Declaration of Security of High Risk Facilities”, Order⁷ of the Ministry of Emergencies and Cases of Protection of the Population from the Consequences of the Chornobyl Catastrophe of February 23, 2006 № 98 “On approval of the methodology for identification of potentially dangerous objects”, and so on.

In light of above legal frameworks, the structure of economic activities, nature of their operation and presence or absence of potential environmental risks, which in certain circumstances may cause emergencies, are identified and analysed. This identification analysis determines whether the enterprise or its individual facilities are potentially dangerous or hazardous facilities. Both the internal and external hazards need to be taken into account during the process of such identification exercise⁸. Internal hazards originate from the operational parts of buildings, structures, equipment, technological processes of the economic activity, and the substances manufactured, processed, stored or transported. External hazards are not directly linked to the functioning of the economic activity, but they can induce an emergency from outside the premises of economic activity and adversely affect its development (natural calamity and accidents at nearby facilities)⁹.

Identification is carried out by a qualified person. The results of the identification process are shared with the local bodies under official supervision and civil protection¹⁰. It then leads to preparation of appropriate notification concerning the results of the identification. The identification process is carried out in the following stages:

- selection of the codes of the emergencies, the occurrence of which is possible at the premise of economic activity, by the classifier of emergencies as approved by the State Committee of Ukraine on Technical Regulation and Consumer Policy, 2010;
- analysis of indicators of emergencies, and determination of their threshold values using the classification indicators as approved by the Order № 1400 of the Ministry of Emergencies of Ukraine of December 12, 2012;
- identification of the sources of risk, which under certain conditions (accidents, malfunctions, natural hazards, etc.) can cause emergencies;
- identification of types of risks for each of the identified sources of risks;

⁴ Law of Ukraine (2012). Kodeks cywilnoho zachystu Ukrainy (Code of Civil Protection of Ukraine), Law of Ukraine 5403-VI of 2 October (2012). Available online: <https://zakon.rada.gov.ua/laws/show/5403-17#Text> [Accessed 21 April 2021]

⁵ Law of Ukraine (2001). Pro objekty pidvyscenoji nebezpeky (On High-Risk Objects), Law of Ukraine 2245-III of 18 January (2001), Verkhovna Rada of Ukraine, 2001. Available online: <https://zakon.rada.gov.ua/laws/show/2245-14#Text> [Accessed 21 April 2021]

⁶ Resolution of the Cabinet of Ministers of Ukraine (2002). Pro identyfikaciju ta deklaruvanna bezpeky objektiv pidvyscenoji nebezpeky (On Identification and Declaration of Safety of High-Risk Objects), Resolution of the Cabinet of Ministers of Ukraine 956 of 11 July (2002), Verkhovna Rada of Ukraine, 2002. Available online: <https://zakon.rada.gov.ua/laws/show/956-2002-%D0%BF#Text> [Accessed 21 April 2021]

⁷ Order of the Ministry of Emergencies and Protection of the Population from the Consequences of the Chornobyl Accident (2006). Pro zatverdzena metodyky identyfikacii potencijno nebezpechnych objektiv (On Approval of the Methodology for Identification of Potentially Dangerous Objects), Order of the Ministry of Emergencies and Protection of the Population from the Consequences of the Chornobyl Accident 98 of 23 February (2006), Verkhovna Rada of Ukraine, 2002. Available online: <https://zakon.rada.gov.ua/laws/show/z0286-06#Text> [Accessed 21 April 2021]

⁸ State building norms of Ukraine (2008). State construction standards B.1.2-8-2008 “Basic requirements for buildings and structures. Safety of human life and health and protection of the environment”. Available online: <http://profidom.com.ua/v-1/v-1-2/1274-dbn-v-1-2-8-2008-osnovni-vimogi-do-budivel-i-sporud-bezpeka-zhitta-i-zdorov-ja-ludini-ta-zahist-navkolishnogo-prirodnogo-seredovishha> [Accessed 21 April 2021]

⁹ State building norms of Ukraine (2008). State Standards of Ukraine 4500-3: 2008 “Dangerous goods. Classification”. Available online: http://online.budstandart.com/en/catalog/doc-page?id_doc=59011 [Accessed 21 April 2021]

¹⁰ Supreme Council of Ukraine (2021). Resolution of the Cabinet of Ministers of Ukraine of November 16, 2002 № 1788 “On approval of the Procedure and rules for compulsory insurance of civil liability of economic entities for damage that may be caused by fires and accidents at high-risk facilities, including fire and explosion facilities and objects on which economic activity can lead to accidents of ecological and sanitary-epidemiological character”. Available online: <https://zakon.rada.gov.ua/laws/show/1788-2002-%D0%BF#Text> [Accessed 21 Apr. 2021].

- determination of the list of hazardous substances used at the object of economic activity, their quantities and class of risks;
- assessment of the emergency zone using the methodology meant for predicting the effects of hazardous chemicals during accidents at industrial facilities and transport (as approved by the Ministry of Emergencies, Ministry of Agrarian Policy, and Ministry of Energy and Natural Resources on March 27, 2001 № 73/82/64/122);
- assessment of potential impacts of emergencies likely to happen from each source of risk (number of casualties, injures, material damage) using the methodology intended to assess losses from emergencies, man-made or natural (as approved by the Cabinet of Ministers of Ukraine on 15 February 2002, p. № 175); and
- determination of state registers in which the object of economic activity is registered.

The examination of documents revealed that during the preparation of the EIA Report for “EKARAN” LLC’s new project the abovementioned necessary steps were not taken into consideration and identification process was not carried out. Let us understand hot-dip galvanizing of metal, which includes 4 stages of metal processing: 1) degreasing (treatment of metal with a degreasing reagent being selected depending on its impact on the environment); 2) washing (metal treatment after degreasing); 3) etching (cleaning the surface of the metal and removing a layer of oxides that appear as a result of heat treatment); and 4) washing after etching. The item 5 of the Notice (published on December 12, 2018 by “EKARAN” LLC) on a planned activity reiterates that “the main materials for planned hot-dip galvanizing activity are metallic zinc, technical hydrochloric acid, inhibitors, depressants, degreaser, flux and natural gas”. Unfortunately, neither the said Notice nor the EIA Report nor other accompanying documents contain information on the degree of risk of each of these substances. Albeit it is known that natural gas belongs to flammable and explosive substances. Another substance is grade synthetic hydrochloric acid, which is classified as “dangerous goods” in accordance with the State Construction Standards 4500-3: 2008. Classification contained in the State Construction Standards 4500-3: 2008 puts hydrochloric acid into the 8th hazard class (sub-class 8.1 – substances causing a necrotic effect on living tissues (necrosis)) (article 6.12.1 of the State Construction Standards 4500-3: 2008). The Order¹¹ № 1430 of November 25, 2008 of the Ministry of Transport and Communications of Ukraine “On Approval of the Rules for the Carriage of Dangerous Goods” has assigned code 8172 (flammable toxic substance) to hydrochloric acid.

The experiences of similar enterprises in Ukraine confirm the hazards of grade synthetic hydrochloric acid on living organisms. In particular, after the hot-dip galvanizing plant came into operation in the city of Sarny, local people began to complain *en masse* for rashes, redness of the skin, and nosebleeds (Rivne Media, 2008). Given this, the Notice of planned activities and the EIA Report should contain information on the procedure carried out by the company to identify high-risk objects. However, such information is missing, although it is, among other things, an important factor in determining the size of the sanitary protection zone.

Despite above mentioned violations, the “EKARAN” LLC is going to build a hot-dip galvanizing plant at a distance of 300 meters from the village Pidberiztsi. According to article 6.13 of the State Building Norms B.1.1-22: 2017 “Composition and Content of the Zoning Plan”¹², the sanitary protection zone of the enterprises falling in class II of harmfulness must be at least 500 m away from human habitation. It is apprehended that planned activity of “EKARAN” LLC belongs to class II of harmfulness. Hence, there is a need to study intensively the environmental effect of the substances used by the enterprise. In case, the said

¹¹ Order of the Ministry of Transport and Communications of Ukraine (2008). Pro zatverdzhennya pravyl perevezennya nebezpechnykh vantaziv (On Approval of the Rules of Transportation of Dangerous Goods), Order of the Ministry of Transport and Communications of Ukraine 1430 of 25 November (2008). Verkhovna Rada of Ukraine. Available online: <https://zakon.rada.gov.ua/laws/show/z0556-17#Text> [Accessed 21 April 2021]

¹² State Building Norms B.1.1-22: 2017 “Composition and content of the zoning plan”. Available online: <https://dreamdim.ua/en/plan-zonuvannya-terytoriyi-zoning-dbn-b-1-1-22-2017/> [Accessed 21 April 2021]

planned activity belongs to the class I of harmfulness, then such zone should be not less than 1000 m away from the human settlement (see State Building Norms B.1.1-22: 2017 "Composition and Content of the Zoning Plan", 2017^{13,14}). Therefore, it is pretty clear that the sanitary protection zone around the enterprise is established in violation of the current legislations. In addition, neither the Notice containing planned activities of the "EKARAN" LLC subject to EIA nor the EIA Report contains information about planned measures in the event of an emergency situation, as required by article 11 of the Law of Ukraine of 18.01.2001 "On High-Risk Objects" and the Order¹⁵ of the Ministry of Labor and Social Policy of Ukraine of 04.12.2002 № 637 "On Approval of the Methodology for Identification of Potentially Dangerous Objects".

The abovementioned violations raise questions compelling the compliance (with current legislations) by the Notice of the "EKARAN" LLC on planned activities, EIA Report and EIA clearance issued by the Department of Ecology and Natural Resources of the Lviv Regional State Administration. The EIA clearance needs modifications conforming the ground realities. Apparently and obviously, the algorithm of "superficial" actions was laid down as spelled in article 3 of the Law on EIA, attracting to define and ascertain the two categories of harmful activities.

Public Hearings in the Case

According to an announcement for the public discussion on EIA Report, a public hearings took place on March 13, 2019 in the premises of the People's House in the village Pidberiztsi. Additionally, the EIA Report with additional information was made accessible to the public on February 21, 2019 between 09.00 to 17.00 hours at the addresses: (1) "EKARAN" LLC, Lviv region, Stryy, Konovalts street 3; (2) Pidberiztsi village council, Lviv region, Pustomyty district, village Pidberiztsi; and (3) Department of Ecology and Natural Resources of the Lviv Regional State Administration, Stryjska street 98, Lviv. The announcement for the public discussion on the EIA Report was also published in newspapers: (1) "Your Shop", February 21, 2019 (this is the newspaper containing free advertisements with a distribution in Lviv and Lviv region); (2) "Voice of the People", February 23, 2019, №8 (11715) (distribution area of newspaper is Pustomyty district of Lviv region). Noticeably, comments and suggestions of the public during the public discussion or during public hearing were not found in the reports of the public discussion and public hearing.

In accordance with part 3 of article 4 of the Law on EIA, and the Notice of the "EKARAN" LLC of planned activities subjected to EIA, announcements for the public discussion on EIA Report are to be published by the business entity no later than three working days from the date of submission of the Notice to the authorized territorial body (i.e., Department of Ecology and Natural Resources of the Lviv Regional State Administration). As specified in parts 3 and 4 of article 5 of this Law on EIA, the authorized central body (i.e., Ministry of Energy and Natural Resources) should publish the announcement in the print media (at least two) specified by the business entity; and the territory of distribution of such print media shall cover administrative-territorial units likely to be affected by the planned activity. The announcements also need to be placed on bulletin boards of regional and central bodies of the local self-government or at other public places in the territory where the activity is planned. Additionally, the announcements can be published in alternate way, which guarantees bringing information to the attention of residents of the relevant

¹³ State Building Norms of Ukraine (2008). State construction standards B.1.2-8-2008 "Basic requirements for buildings and structures. Safety of human life and health and protection of the environment". Available online: <http://profidom.com.ua/v-1/v-1-2/1274-dbn-v-1-2-8-2008-osnovni-vimogi-do-budivel-i-sporud-bezpeka-zhitta-i-zdorov-ja-ludini-ta-zahist-navkolishnogo-prirodnogo-seredovishha> [Accessed 21 April 2021]

¹⁴ State building norms of Ukraine (2008). State Standards of Ukraine 4500-3: 2008 "Dangerous goods. Classification". Available online: http://online.budstandart.com/en/catalog/doc-page?id_doc=59011 [Accessed 21 April 2021]

¹⁵ Order of the Ministry of Labor and Social Policy of Ukraine (2002). Pro zatverdzeni metodyky vyznacenna ryzykiv ta jich pryjnatnykh rivniv dla deklaruvannya bezpeky ob'ektiv pidvyscenoji nebezpeky (On Approval of the Methodology for Determining Risks and their Acceptable Levels for Declaring the Safety of High-Risk Facilities), Order of the Ministry of Labor and Social Policy of Ukraine 637 of 04 December (2002). Verkhovna Rada of Ukraine. Available online: <https://zakon.rada.gov.ua/rada/show/v0637203-02#Text>. [Accessed 21 April 2021]

administrative unit where activity is planned, or to the relevant local community and other stakeholders likely to be affected by the planned activities. In this particular case, the inhabitants of the settlements, such as village Podberiztsi, village Pidbirtci, village Pidhirne and the village Lysynychi situated in Pustomyty district of Lviv region, were informed about the planned activities in accordance with the requirements of current legislation. On the other hand, residents of village Vynnyky, which lies in the Lychakiv district of Lviv, were restricted in accessing information about the public discussion on the EIA Report, and they could only obtain information from the newspaper “Your Shop”, February 21, 2019, which is not read by the entire population.

Referring above analysis, there is a reason to believe that the procedure of announcing the public discussion on the EIA Report and the discussion itself were conducted in violation of part 2 of article 50 of the Constitution of Ukraine and article 9 of the Law of Ukraine of 1 January 1991 “On Environmental Protection”, while restricting the right of access to environmental information, as well as the right to participate in the discussion, to submit proposals to draft regulations, to file materials about the location, construction and reconstruction of facilities that may negatively affect the environment, to make proposals to public authorities and local governments, and to caution legal entities involved in decision-making on such issues.

Results of the Forensic Engineering and Environmental Examination

In accordance with article 102 of the Code of Administrative Procedure of Ukraine, a court, on the request of a party to the case or on its own initiative, appoints an expert in the case if special knowledge is required to clarify the circumstances relevant to the case. Thus, in the case №1.380.2019.005795, the Lviv District Administrative Court administered a forensic examination on February 07, 2020. The following issues were raised by the court:

- Are the indicators measuring the environmental impact of the planned activities of “EKARAN” LLC as mentioned in the EIA clearance for the planned activities “New construction of a hot-dip galvanizing plant on the territory of Pidberiztsi village council, Pustomyty district, Lviv region № 03.02-20181262351 of April 25, 2019” devised correctly?
- Is the implementation of the planned activity permissible, taking into account the data provided in the EIA Report?
- Do the data reflected in the EIA Report allow to investigate (assess) fully the environmental impact?

The examination conducted by the appointed expert did not provide any substantial scrutiny of planned activities of “EKARAN” LLC, which may have an impact on the environment. In fact, the expert gave his conclusion based on the data prepared by a private institution “Company Center Ltd.” on the order of “EKARAN” LLC. The expert considered the data as indisputably true, thereby, evading his responsibility and accountability. He was appointed by court to augment special knowledge and technical information to cross-check the reliability of the facts supplied in the documents availed to him for investigation. The expert, on his part, had to point out the impossibility of performing the examination given his lack of competency. On the contrary, he concluded based on the data that the expert himself did not verify.

In addition, the expert did not examine the impact of planned activity on the environment, including the consequences for the safety of human life and health, flora, fauna, biodiversity, soil, air, water, climate, etc., and the possible effects of raw materials, that “EKARAN” LLC would use in the operation of the hot-dip galvanizing plant, such as metallic zinc, technical hydrochloric acid, inhibitors, depressants, degreaser, flux and natural gas. These substances are hazardous, toxic and flammable; however, despite this, neither the EIA Report nor EIA clearance contains information on the degree of risk from each of these substances and the nature of their impact on the environment. An assessment of the impact of these substances on the environment is also not provided in the expert report. The forensic expert of the Lviv Scientific Research Institute of Forensic Expertise, who was entrusted to the forensic examination, determined that the planned

activity i.e., construction of a hot-dip galvanizing plant on the territory of the Pidberiztsi village council, meets the requirements of the current environmental legislation.

As can be evidenced from the operative part of the Expert's Opinion, the results of the expert investigation did not achieve the tasks delegated by the court. Thus, the expert expressed only the assumptions about the admissibility of the planned activities of the hot-dip galvanizing plant by "EKARAN" LLC, while justifying data and conclusions of the EIA Report, EIA clearance issued by the Department of Environmental Resources of Lviv Regional State Administration, and an Expert report of December 17, 2018 № 14-2368-18 compiled by the Branch of Ukrainian State Construction Specialist in Lviv region. At the same time, the forensic expert had to examine the accuracy and sufficiency of the indicators of environmental impact of the planned activities of "EKARAN" LLC reflected in the EIA clearance and EIA Report, and not to take for granted the provisions of the above documents, as it contradicts the purpose of the examination and the principles of forensic screening as defined by the Law of Ukraine of 25 February 1994 "On Forensic Examination". The plenum of the Supreme Court of Ukraine¹⁶, in its Resolution № 8 of May 30, 1997, indicates, in particular, that it is inadmissible to consider expert conclusion as sources of evidence that take precedence over other evidence without proper examination and evaluation or to overestimate the probative value of probable conclusions. The expert's opinion, like any other piece of evidence, may be questionable or even incorrect for a variety of reasons; so it, like any other evidence, must be carefully, comprehensively and critically evaluated (Resolution of the Plenum of the Supreme Court of Ukraine "On Forensic Examination in Criminal and Civil Cases" of May 30, 1997 № 8).

As V. Yurchyshyn and number of other scholars argue, while conducting a forensic examination, probable conclusions are unacceptable, they do not have evidentiary value in the case (Yurchyshyn, 2013). A similar view is held by other scholars who believe that probable conclusions contain assumptions about the facts, and, therefore, they cannot be considered as sources of evidence (Thompson, 2018; Mudge, 2020; Allwood, Fierer and Dunn, 2020; Morrison, 2000). It is worth quoting the work of A.I. Vinberg: "The expert's opinion must always be expressed in a categorical form, because otherwise the expert must report the impossibility of resolving the issue before him or the impossibility of giving an opinion" (Vinberg, 1956). By agreeing with A.I. Vinberg on the fact that the probable conclusions need serious argumentation, a thorough analysis of the factual material of the case should be undertaken.

In view of the above, it is believed that the opinion of the forensic expert is incomplete and contains internal inconsistencies caused primarily by the methodology of the study. Under such conditions, none of the documents mentioned in the study could be considered as such. On the basis of such documents, it was very much possible to draw an unambiguous conclusion about the possibility or impossibility of constructing planned facilities under the dispute. In this case, there is a logical conclusion about the need to exclude from the Law on EIA classification of harmful activities into two classes of risks. Conducting a mandatory procedure for identifying the level of risk of planned activities in each case is needed.

Conclusions

The analysis of case study demonstrates a need for further improvement in legislation on EIA in Ukraine, including the definition of activities, lists of planned activities, and classification of hazardous materials, which need assessment for environmental impact. More precisely, the abolition of the two categories of

¹⁶ Supreme Council of Ukraine (2021). Resolution of the Cabinet of Ministers of Ukraine of November 16, 2002 № 1788 "On approval of the Procedure and rules for compulsory insurance of civil liability of economic entities for damage that may be caused by fires and accidents at high risk facilities, including fire and explosion facilities and objects on which economic activity can lead to accidents of ecological and sanitary-epidemiological character". Available online: <https://zakon.rada.gov.ua/laws/show/1788-2002-%D0%BF#Text> [Accessed 21 Apr. 2021].

activities defined in article 3 of the Law “On Environmental Impact Assessment”¹⁷ is required. Based on documents analysed, there are reasonable doubts about the effectiveness of determining the risks of certain activities only on the basis of the lists of activities enshrined in the law. The degree of risk from the planned activities and facilities having a potential impact on the environment should be determined in each case through the procedure of identification of the object of potential environmental hazards in accordance with current legislation.

References

- Allwood, J.S., Fierer, N. and Dunn, R.R. (2020). The Future of Environmental DNA in Forensic Science. *Applied and Environmental Microbiology*, 86(2): 1-9. DOI: <https://dx.doi.org/10.1128%2FAEM.01504-19>
- Broderick, M. (2013). Cumulative Impact Assessment Guidelines Guiding Principles for Cumulative Impact Assessment in Offshore Wind Farms. Available online: <https://nerc.ukri.org/innovation/activities/energy/offshore/cumulative-impact-assessment-guidelines/> [Accessed 21 April 2021]
- European Commission (2021). Environmental Impact Assessment. Available online: <https://ec.europa.eu/environment/eia/eia-legalcontext.htm> [Accessed 21 April 2021]
- Golovko, L., Yara, O., Kutsevych, M. and Hubanova, T. (2019). Environmental Policy Integration in Ukraine and the EU. *European Journal of Sustainable Development*, 8(3): 221-227. DOI: <https://doi.org/10.14207/ejsd.2019.v8n3p221>
- Rivne Media (2008). How a plant in Rivne region "kills" people's health. Available online: <https://rivne.media/news/yak-zavod-na-rivnenshchini-vbivae-zdorovya-lyudey> [Accessed 21 April 2021]
- Kutsevych, M., Yara, O., Golovko, L. and Terpeliuk, V. (2020). Sustainable Approaches to Waste Management: Regulatory and Financial Instruments. *European Journal of Sustainable Development*, 9(2): 163-171. DOI: <https://doi.org/10.14207/ejsd.2020.v9n2p163>
- Ladychenko, V. and Golovko, L. (2018). The Right of Access to Environmental Information in Ukraine and the EU. *European Journal of Sustainable Development*, 7(3): 455-459. DOI: <https://doi.org/10.14207/ejsd.2018.v7n3p455>
- Morrison, R.D. (2000). Critical Review of Environmental Forensic Techniques: Part I. *Environmental Forensics*, 1(4): 157-173. DOI: <https://doi.org/10.1006/enfo.2000.0017>
- Mudge, S.M. (2020). Environmental Forensics and the Importance of Source Identification Issues. *Environmental Science and Technology*, 26: 1-17. DOI: <http://dx.doi.org/10.1039/9781847558343-00001>.
- Noble, B. (2008). Strategic approaches to regional cumulative effects assessment: A case study of the Great Sand Hills, Canada. *Impact Assessment and Project Appraisal*, 26(2): 78-90. DOI: <http://dx.doi.org/10.3152/146155108X316405>
- Pinho, P., McCallum, S. and Santos Cruz, S. (2010) A critical appraisal of EIA screening practice in EU Member States, *Impact Assessment and Project Appraisal*, 28(2): 91-107. DOI: <https://doi.org/10.3152/146155110X498799>
- Shparyk, N. (2018). Legal Regulation of Environmental Impact Assessment in Ukraine: Current State. *Journal of Vasyl Stefanyk Precarpathian National University*, 5(2): 152-162. DOI: <https://doi.org/10.15330/jpnu.5.1.152-162>
- Thompson, W. (2018). How Should Forensic Scientists Present Source Conclusions? *Seton Hall Law Review*, 48(3): 773-813. DOI: <https://doi.org/10.6028/jres.122.027>.
- Transcarpathian District Administrative Court (2020). Decision of March 18, 2020. Available online: <https://zakononline.com.ua/court-decisions/show/88498315> [Accessed 21 April 2021].

¹⁷ Law of Ukraine (2017). Pro otsinku vplyvu na dovykilla (On Environmental Impact Assessment), Law of Ukraine 2059-VIII of 23 May (2017), Verkhovna Rada of Ukraine, 2017. Available online: <https://zakon.rada.gov.ua/laws/show/2059-19#Text> [Accessed 21 April 2021]

- Vinberg, A.I. (1956). *Forensic examination in the Soviet criminal process*, 1st ed. Moscow: Gosyurizdat.
- Yara, O., Uliutina, O., Golovko, L. and Andrushchenko, L. (2018). The EU Water Framework Directive: Challenges and Prospects for Implementation in Ukraine. *European Journal of Sustainable Development*, 7(2): 175-182. DOI: <https://doi.org/10.14207/ejsd.2018.v7n2p175>
- Yurchyshyn, V.D. (2013). Analysis and classification conclusions of expert in criminal proceedings: theoretical and practical aspects. *Journal of Vasyl Stefanyk Precarpathian National University*, 1(3): 440-452.

Authors' Declarations and Essential Ethical Compliances

Authors' Contributions (in accordance with ICMJE criteria for authorship)

<i>Authors' Contributions (in accordance with ICMJE criteria for authorship)</i> Contribution	Author 1	Author 2	Author 3	Author 4
Conceived and designed the research or analysis	Yes	Yes	Yes	Yes
Collected the data	Yes	Yes	Yes	Yes
Contributed to data analysis & interpretation	Yes	Yes	Yes	Yes
Wrote the article/paper	Yes	Yes	Yes	Yes
Critical revision of the article/paper	Yes	Yes	Yes	No
Editing of the article/paper	No	No	Yes	No
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Project Administration	Yes	No	No	No
Funding Acquisition	No	No	No	Yes
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Research involving Plants

During the research, the authors followed the principles of the Convention on Biological Diversity and the Convention on the Trade in Endangered Species of Wild Fauna and Flora.

Research on Indigenous Peoples and/or Traditional Knowledge

Has this research involved Indigenous Peoples as participants or respondents? No

(Optional) PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)

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